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SOV/124-58-8-9300

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 133 (USSR)

AUTHORS: Polezhayev, A.A., Morozov, B.A.

TITLE: On Certain Errors in the Measurement of the Deformations Undergone by Various Components of Metallurgical Equipment (O nekotorykh oshibkakh izmereniya deformatsiy detaley metallurgicheskogo oborudovaniy)

PERIODICAL: V sb.: Prokatn. stany. Nr 8. Moscow, Mashgiz, 1956, pp 248-254

ABSTRACT: The authors contend that the method of using resistance-type strain-gage pickups to measure deformations in order to determine the magnitudes and directions of the principal stresses involves certain errors, and they analyze these errors. They adduce formulae for the principal stresses for rosettes characterized by angles of 45° and 120°. The errors relative to the directions of σ_1 and σ_2 at different ϵ_1/ϵ_2 ratios are graphed. It is shown that in the case of σ_1 the greatest error obtains whenever the difference in the readings for ϵ_x and ϵ_y does not exceed the rated error allowance

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On Certain Errors in the Measurement of the Deformations (cont.)

between the strain-gage measurements and the true magnitude of the deformations. The authors underscore that in calculating the principal stresses and their respective directions from the measured deformations in rosettes great care must be exercised whenever the principal-stress ratios $\epsilon_1 / \epsilon_2 < 2$; in this case the error in the stress may be as much as double that obtaining in the deformation measurement, while the angular error may be -90°.

A.M. Sinyukov

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POLEZHAYEV, A. A., Engr.; Morozov, B.A., Cand. of Tech. Sciences.

"Errors in Measuring Deformations in Metallurgical Equipment Parts," Rolling Mills; Studies, Calculation, Design and Operation, No. 8, Moscow, Mashgiz, 1956. 258 p. (p. 249)

Articles by Anisifirov, V. M.; Korolev, A.A.; Morozov, B.A. Polezhayev, A.A.; and Lavrov, A.A. give results of research in the fields of durability and efficiency of metallurgical machinery. There are 57 references of which 52 are Soviet, 3 USA, 2 German.

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PYLOV, B.A., kand.tekhn.nauk; POLEZHAYEV, A.A., kand.tekhn.nauk;
GAVRIKOV, Yu.A.; STREL'TSOV, V.I.

Effect of hydrokinetic transmissions on torsional vibrations.
Avt.prom. 28 no.2:13-15 F '62. (MIRA 15:2)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Motor vehicles--Transmission devices--Vibrations)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, Aleksey Aleksandrovich

[Industry of Archangel Province]Promyshlennost' Arkhangel'skoi oblasti. Arkhangel'sk, Arkhangel'skoe knizhnoe izd-vo 1957. 38 p. (MIRA 16:1)
(Archangel Province--Industries)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, Aleksey Aleksandrovich; YEDOVIN, Nikolay Petrovich

[Industry and construction in Archangel Province from 1959 to 1965] Promyshlennost' i stroitel'stvo Arkhangel'skoi oblasti v 1959-1965 godakh. Arkhangel'sk, Arkhangel'skoe knizhnoe izd-vo, 1959. 55 p. (MIRA 14:3)
(Archangel Province--Industries)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

PYLOV, B.A., kand.tekhn.nauk; POLEZHAYEV, A.A., kand.tekhn.nauk; GAVRIKOV, Yu.A.; STREL'TSOV, V.I.

Investigating the resistance to torsional vibrations of hydrodynamic transmissions. Avt.prom. 27 no.10:21-23 O '61. (MIRA 14:10)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.

(Automobiles—Transmission devices—Vibration)

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CHOCHIA, K.N.; RABINOVICH, R.M.; POLEZHAYEV, A.B.

Complications in radiotherapy of cancer of the larynx. Vop. onk. 11 no.12:25-31 '65. (MIRA 19:1)

1. TSentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut Ministerstva zdravookhraneniya SSSR (dir. - Ye.I. Vorob'yev).

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POLEZHAYEV, A.B

CHACHIA K.N., POLEZHAYEV, A.E., RABINOVICH, R.M.

Roentgenologic examination of laryngeal cancer during radiotherapy. Vest. rentg., Moskva No.2:42-46 Mar-Apr 1953. (CLML 25:5)

1. Of the Radio Surgery Division (Head -- Honored Worker in Science Prof. V.A. Shaak), Central Roentgenological, Radiological, and Cancer Institute (Director -- Prof. M.N. Pobedinskiy), Ministry of Public Health USSR.

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POLEZHAYEV, A.B.

CHOCHIA, K.N.; POLEZHAYEV, A.B.

Therapeutic use of radioactive cobalt in laryngology [with summary in English]. Vest.oto-rin. 19 no.4:52-56 Jl-Ag '57. (MIRA 10:11)

1. Iz TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta (dir. - prof. M.N.Pobedinskiy), Leningrad.
(LARYNX, neoplasms
ther., radiocobalt)
(COBALT, radioactive
ther. of cancer of larynx)

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POLEZHAYEV, A.P.

National Council of the U.S.S.R. Cartographers(NCC) and international cooperation of Soviet cartographers. Izv. AN SSSR. Ser. geog. no.3: 122-125 My-Je '65. (MIRA 18:6)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

[illegible], A.P., kand.geogr.n.

Use of artificial earth satellites for geodetic purposes. Vest. AN SSSR 35 no.8:67-69 Ag '65. (MIRA 18:8)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

ACC NR: AT7002098 SOURCE CODE: UR/0000/66/000/000/0052/0060

AUTHOR: Polenhavey, A. P.

ORG: none

TITLE: American program for creating a world geodetic system

SOURCE: Geodeziya i kartografiya, no. 4, 1966, 52-60

TOPIC TAGS: artificial satellite observation, geodesy

ABSTRACT: This article in Geodeziya i Kartografiya is based solely on American data describing the United States plans for creating a world-wide geodetic network, which includes: creation of a unified world system of coordinates as an initial system for carrying on all geodetic and cartographic work; replacement of the classical method for determining the figure and size of the earth by great arcs, which require much expenditure of time, by a more economical and theoretically more perfect method; establishment of geometrical connection between all world artificial earth satellite observation stations for precise determination of satellite orbits, which in turn will be used for determining and analyzing different gravimetric and geophysical parameters characterizing the position of the earth's center of mass and the form of its gravity field. The article is published for the edification of Soviet specialists in this area of interest. Orig. art. has: 3 figures. [JPRS: 37,397]

SUB CODE: 08 / SUBM DATE: none

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Polezhayev, I. A.

7752 Vidovoye rayonirovaniye silosnykh, kormovykh, bakhchevykh kul'tur I korneklubneplodov. utv. 21/x 1954 G.K., izd-vo m-va sel'skogo khozyaystva sssr, 1955, 328. 22sm. (glav. upr. s.-kh. propagandy I nauki m-va sel'skogo khozyaystva sssr). 20.000 ekz. Bezpl.-V kontse teksta avt. razrabotki: P.ye. Marinich, A. I. Vytchikov, M. P. Yelsukov, A. L. Mikhel'chuk, I. A. Polezhayev, M. F. Sarre, M. N. Smirnov, B. F. Solov'yev. - (55-3885)
633.2/4:631.52

SO. Knizhnaya Letopis', Vol. 7, 1955

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, I.A., Cand Agr Sci -- (diss) "Selection of Perennial Grasses for Irrigated Agriculture of the Trans-Volga Region Beyond the Volga." Mos, 1957. 19 pp. (All-Union Acad Agr Sci im V. I. Lenin, All-Union Sci Res Inst of Fodder im V. R. Vil'yams), 110 copies. (KL, 7-58, 111)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, I.A., kand.sel'skokhoz.nauk

Carrots as a valuable forage crop. Zhivotnovodstvo 24 no.5:16-17 My '62. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

USSR / Cultivated Plants. Fodders. M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25072

Author : Polezhayev, I. A.
Inst : The All-Union S.R.I. of Fodders
Title : A Leguminous and Grain Perennial Grass Mixture on the Irrigated Lands Around the Volga River

Orig Pub: Byul. nauchno-tekhn. inform. Vses. n.-i. in-t kormov, 1957, No 2-3, 40-42

Abstract: It is recommended on the basis of experiments made in 1953-1956 at the Buzulukskiy Variety Testing Plot (in the south chernozem soil zone of the region about the Volga) that a clover-timothy mixture with a use of one year (1) and a mixture of sainfoin and brome for 2 years of use (2) be introduced into production for the irrigated land of the arid rayons of the South East. 1 on a three year average

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

OS'MAKOV, I.G., kand. sel'skokhoz. nauk; POLEZHAYEV, I.A., kand. sel'skokhoz. nauk; CHERENKOV, A.D., kand. sel'skokhoz. nauk

Growing sugar beets in the non-Chernozem zone. Zhivotnovodstvo 23 no.3:45-49 Mr '61. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.R. Vil'yamsa.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, Ivan Antonovich, kand. sel'khoz. nauk; VISHNYAKOVA, Ye., red.

[Growing sugar beet for forage in the non-Chernozem zone] Kul'tura sakharnoi svekly na korm v nechernozemnoi zone. Moskva, Mosk. rabochii, 1964. 154 p. (MIRA 17:12)

1. Zaveduyushchiy otdelom sakharnoy svekly i kormovykh korneplodov Vsesoyuznogo nauchno-issledovatel'skogo instituta kormov (for Polezhayev).

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, I.A.

Perennial grass mixtures for irrigated areas of the southeast. Zemledelie 5 no.3:25-29 Mr '57. (MLRA 10:3)
(Volga Valley--Grasses)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, I.A., kand. sel'khoz. nauk; LEONOV, S., red.;
POKHLEBKINA, M., tekhn. red.

[Sugar beet for forage] Sakharnaia svekla na korm. Moskva, Mosk. rabochii, 1962. 31 p. (MIRA 15:6)
(Sugar beets)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, Ivan Antonovich; VISHNYAKOVA, Ye., red.; USTINOVA, S., tekhn. red.

[Sugar beets for forage] Sakharnaia svekla na korm. Moskva, Mosk. rabochii, 1963. 95 p. (MIRA 17:1)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

OS'MAKOV, Ivan Grigor'yevich; POLEZHAYEV, Ivan Antonovich; KOREYSHO, Ye.G., red.; GUREVICH, M.M., tekhn. red.

[Sugar beets for cattle feeding in non-Chernozem soils] Sakharnaia svekla na korm skotu v nechernozemnoi zone. Moskva, Sel'khozizdat, 1962. 116 p. (MIRA 15:7)
(Sugar beets)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

KRIVITSKIY, Boris Khatskelevich; POLEZHAYEV,I.I., redaktor; DIKAREVA,A.I. redaktor; KORUZEV,N.N., tekhnicheskiy redaktor

[Impulse circuits and apparatus] Impul'snye skhemy i ustroistva. Moskva, Izd-vo "Sovetskoe radio," 1955. 247 p. (MIRA 9:2)
(Radio--Apparatus and supplies)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, L. V.

"Renewal of the Regenerative Capacity of Tailless Amphibians," Arkh. anat., gistol. i embriol. (Archives of Anatomy, Histology, and Embryology), 4, No 3, 104, 1935.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, L.V.; TEPLITS, N.A.; TUCHKOVA, S. Ya.

Restoration of the regenerative ability of axolotl extremities, inhibited by X-ray irradiation, with the help of nucleic acids. Dokl. AN SSSR 159 no.3:682-685 N '64 (MIRA 18:1)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR. Predstavleno akademikom A.N. Bakulevym.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, L. V.

"Regulation of the Eye Rudiment and Induction of the Lens from Epithelium." (p. 489) by Polezhayev, L. V.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. V, 1935, No. 3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAEV, L. V.

"On the Role of Organizera in the Ontogeny of Amphibia", (p. 101) by Polezhaev, L. V.

SO: Advances in Contemporary Biology (USPEKHI SOVREMENNOI BIOLOGII) Vol. V, No. 1 1936

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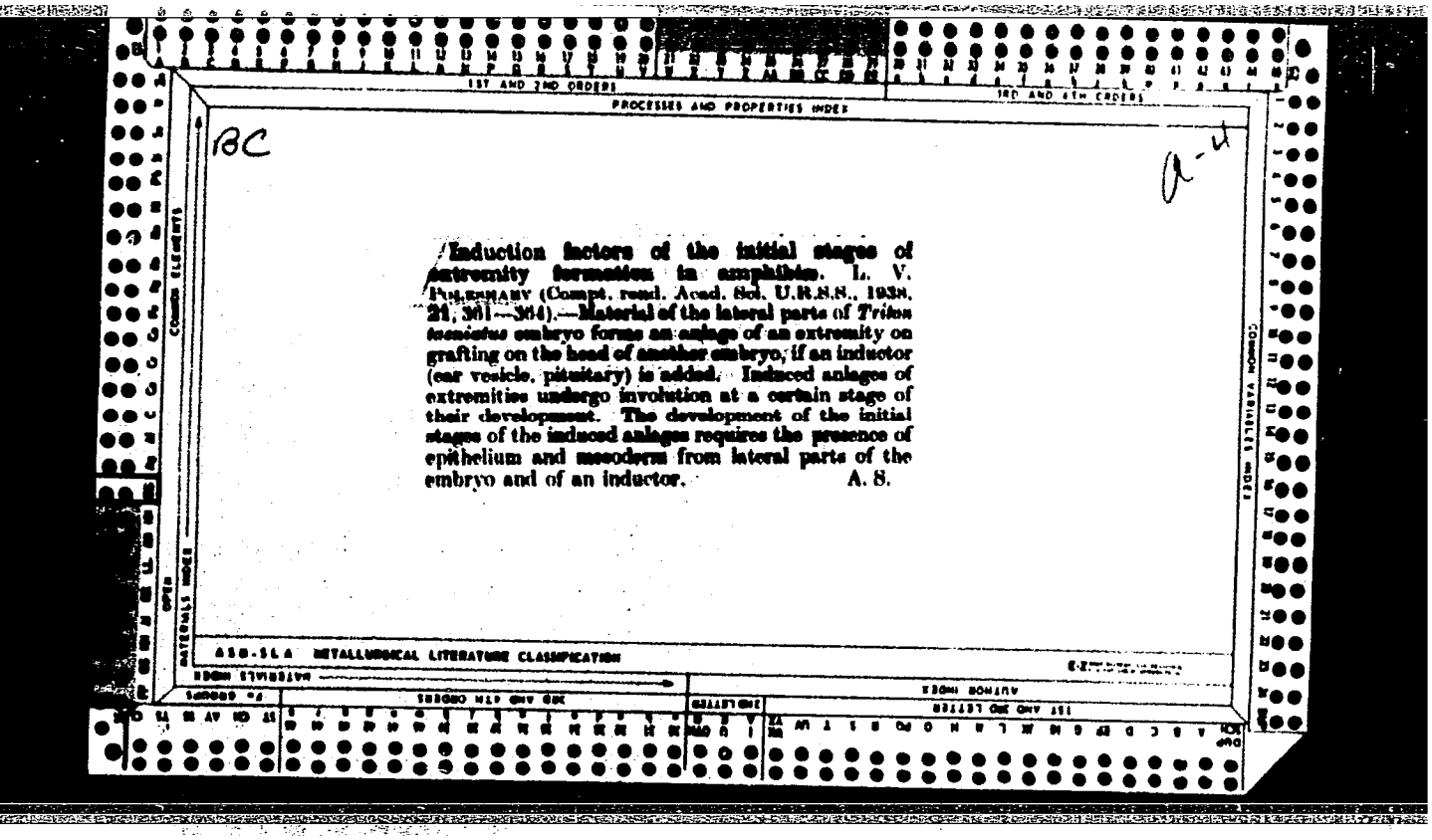

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

BC

A-4

Induction factors of the initial stages of extremity formation in amphibia. L. V. Polezhaev (Compt. rend. Acad. Sci. U.R.S.S., 1938, 21, 301—304).—Material of the lateral parts of *Triton taeniatus* embryo forms an anlage of an extremity on grafting on the head of another embryo, if an inductor (ear vesicle, pituitary) is added. Induced anlages of extremities undergo involution at a certain stage of their development. The development of the initial stages of the induced anlages requires the presence of epithelium and mesoderm from lateral parts of the embryo and of an inductor. A. S.

COMMON ELEMENTS

MATERIALS INDEX

COMMON VARIABLES INDEX

A 35-S1A METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

2ND AND 4TH ORDERS

2ND LETTERS

AUTHOR INDEX

1ST AND 3RD LETTER

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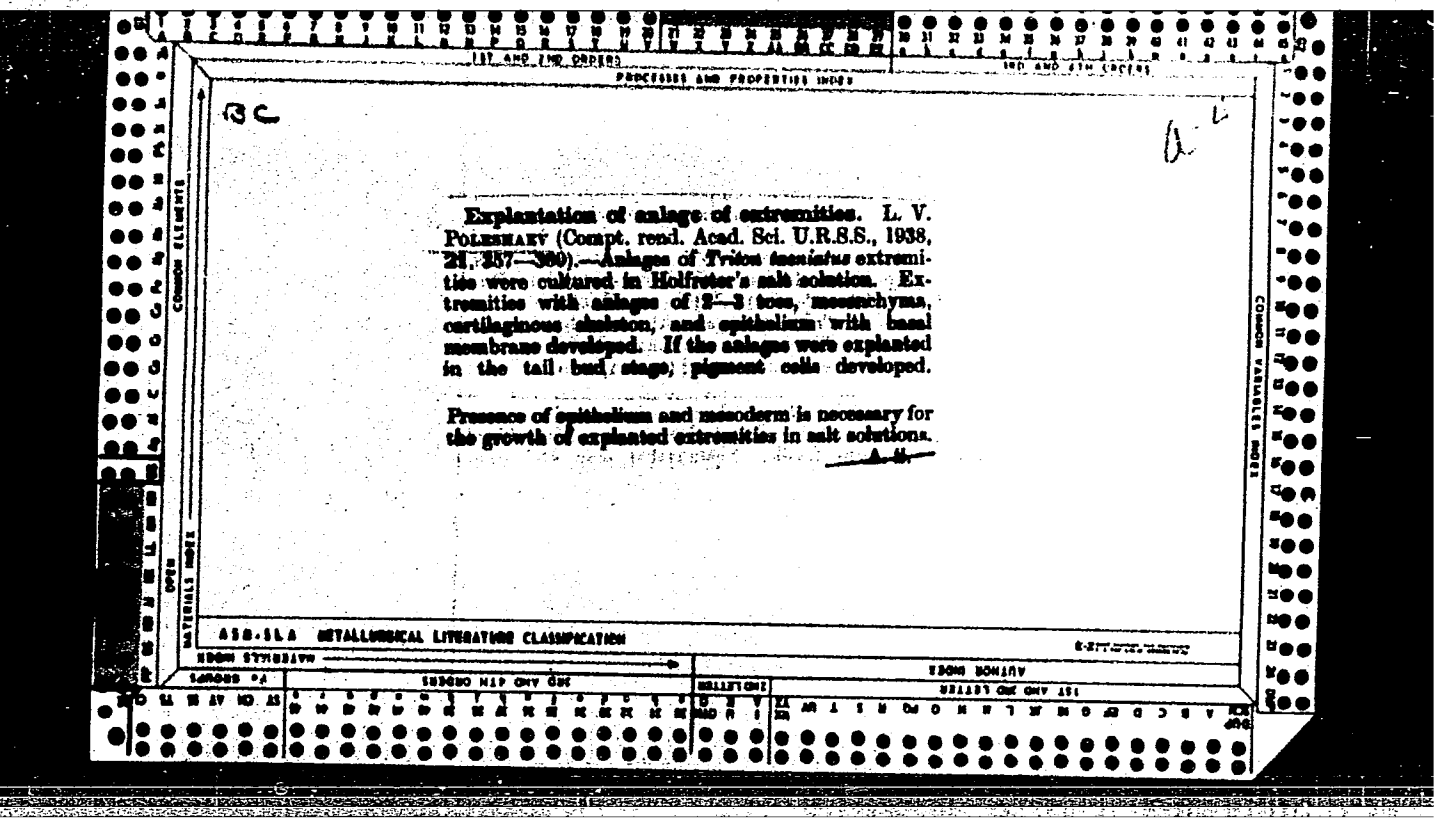

Explantation of anlage of extremities. L. V. POLEZHAEV (Compt. rend. Acad. Sci. U.R.S.S., 1938, 21, 357—360).—Anlages of *Triton taeniatus* extremities were cultured in Holfreter's salt solution. Extremities with anlages of 2—3 toes, mesenchyma, cartilaginous skeleton, and epithelium with basal membrane developed. If the anlages were explanted in the tail bud stage, pigment cells developed.

Presence of epithelium and mesoderm is necessary for the growth of explanted extremities in salt solutions.

A. M.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEYAEV, L.

"An analysis of morphogenetic processes in ontogenesis. Principle of equifinality." (p. 467) by L. Poleyaev

SO: Advances in Contemporary Biology (Uspekki Sovremennoi Biologii) Vol. VIII, No. 3, 1938

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEYAEV, L. V.

"The developmental mechanics of the nervous system." (p. 24)
by Poleyaev, L. V.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologie(
Vol. XI, No. 1, 1939

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POLEZHAYEV, L. V.

"Concerning the Localization of the Factors Which in Direct Manner Determine the Position of the Anterior Extremities of Amphibians," Dok.AN, 22, No. 3, 1939. Inst. of Experimental Biol., Moscow, c1939-.

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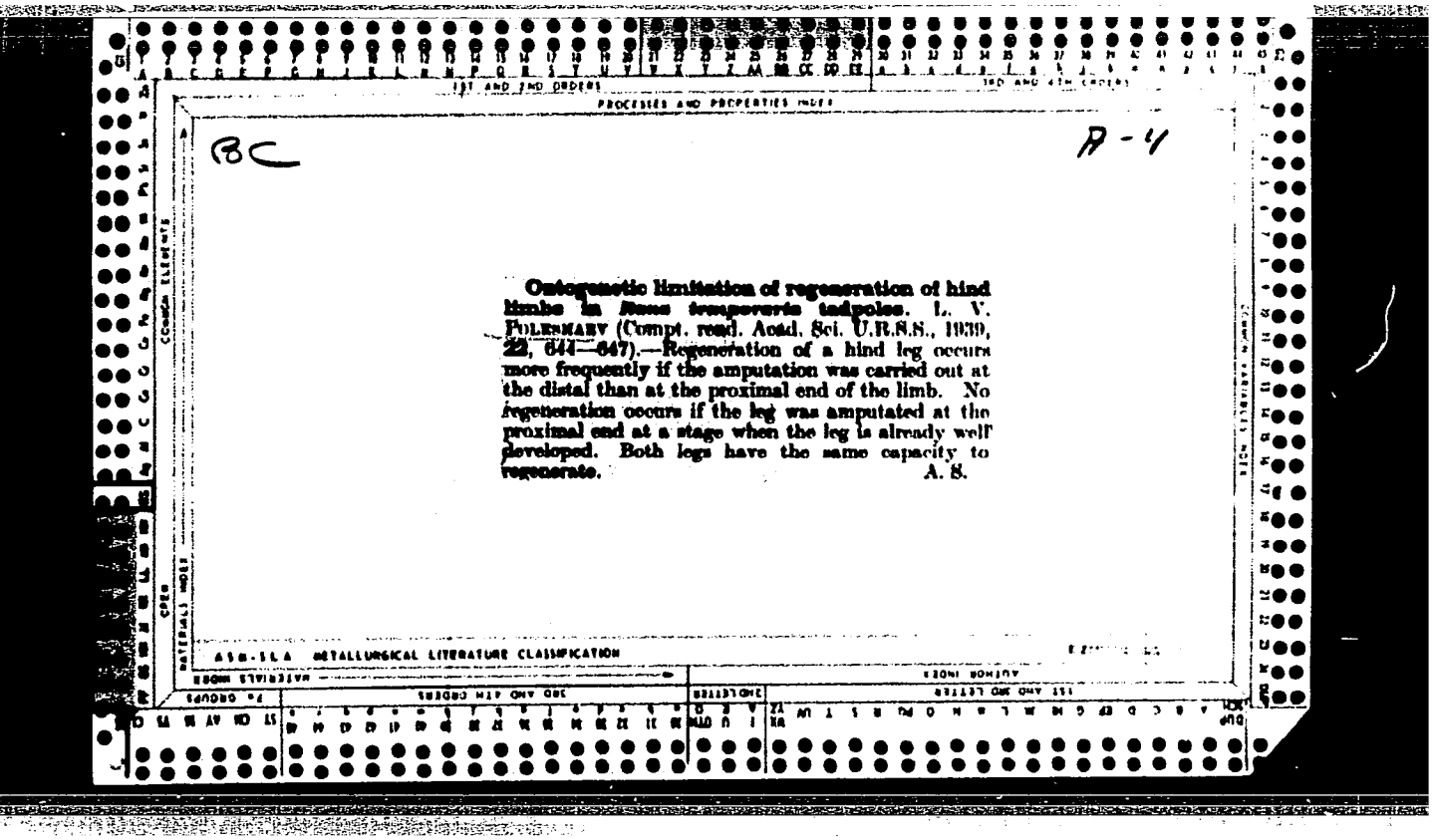

BC

A-4

Ontogenetic limitation of regeneration of hind limbs in *Rana temporaria* tadpoles. L. V. POLEMARV (Compt. read. Acad. Sci. U.R.S.S., 1939, 22, 644—647).—Regeneration of a hind leg occurs more frequently if the amputation was carried out at the distal than at the proximal end of the limb. No regeneration occurs if the leg was amputated at the proximal end at a stage when the leg is already well developed. Both legs have the same capacity to regenerate. A. S.

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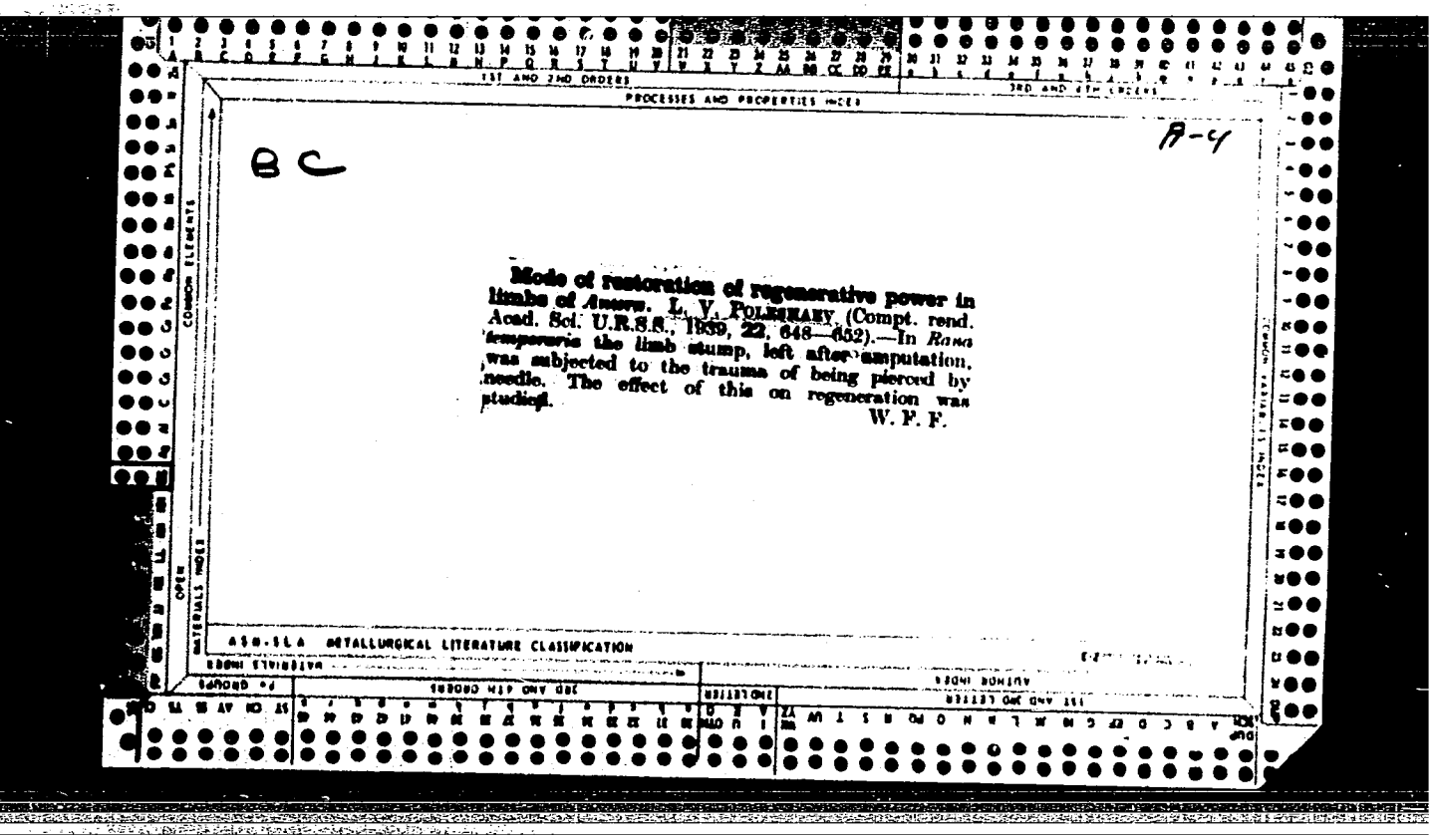

B C

A-4

Mode of restoration of regenerative power in limbs of *Amœva*. L. V. POLEZHAEV. (Compt. rend. Acad. Sci. U.R.S.S., 1939, 22, 648—652).—In *Rana temporaria* the limb stump, left after amputation, was subjected to the trauma of being pierced by needle. The effect of this on regeneration was studied.

W. F. F.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, L. V.

"Studies by the Method of Transplantation on the Loss and Restoration of the Regenerative Power in the Tailless Amphibian Limbs," Dok.AN, 23, No. 7, 1939. Inst. of Experimental Biol. Mbr. Acad. Sci., c1939-.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEZHAYEV, L. V.

"Concerning the Significance of Epithelium and Mesoderm With the Loss of Regenerative-Capacity of Extremities Among Anuran," Dok.AN, 25, No. 6, 1939. Inst. Exptl. Biol., Acad. Sci. c1939-.

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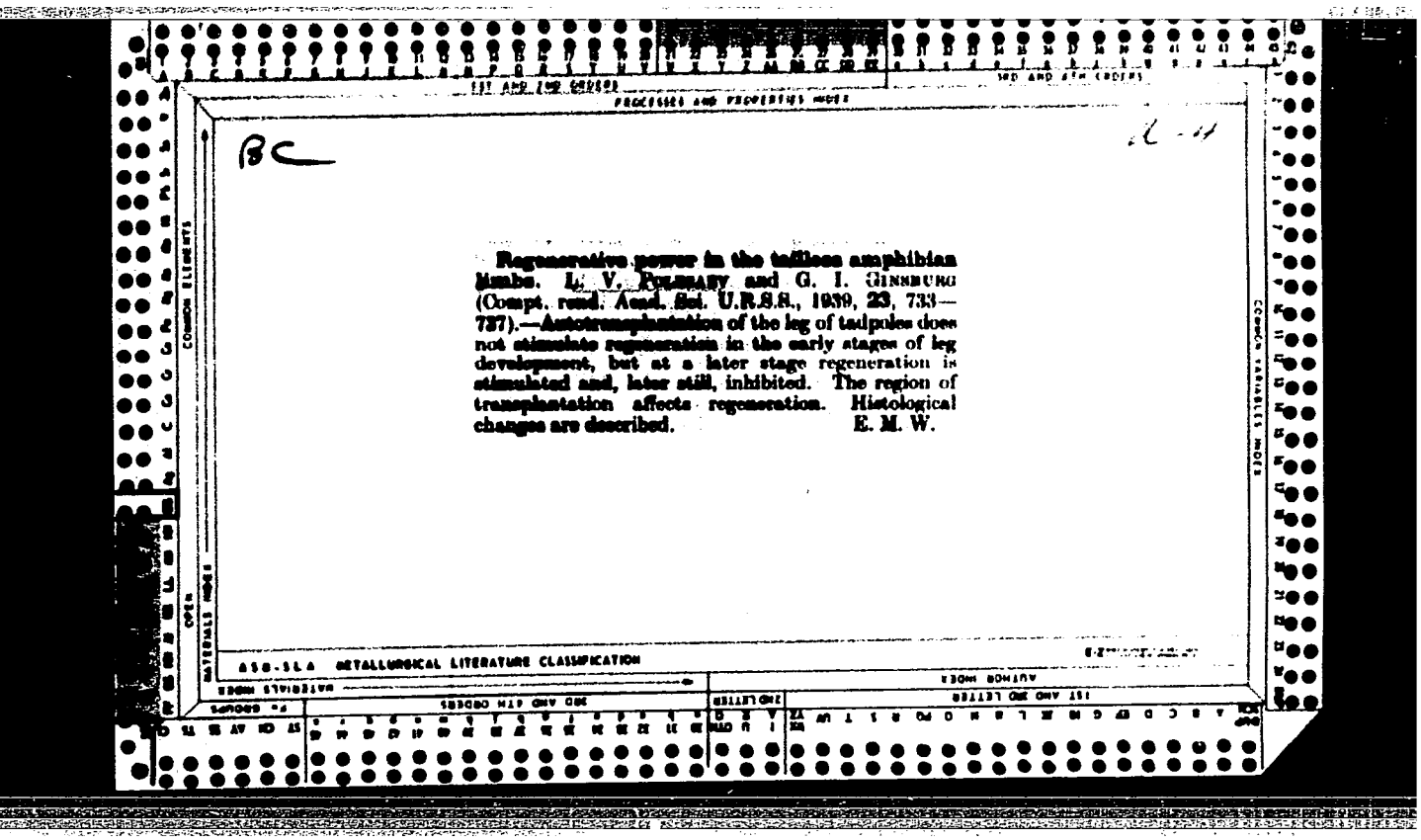
"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5



BC

L-11

Regenerative power in the tailless amphibian limbs. L. V. Polezhaev and G. I. Ginsburg (Compt. rend. Acad. Sci. U.R.S.S., 1939, **23**, 733—737).—Autotransplantation of the leg of tadpoles does not stimulate regeneration in the early stages of leg development, but at a later stage regeneration is stimulated and, later still, inhibited. The region of transplantation affects regeneration. Histological changes are described. E. M. W.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

POLEYAEV, L. N.

"The Problem of regionality in the amphibian ontogenesis" (p. 447) by Poleyaev, L. N.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologie) Vol. XII, No. 3, 1940

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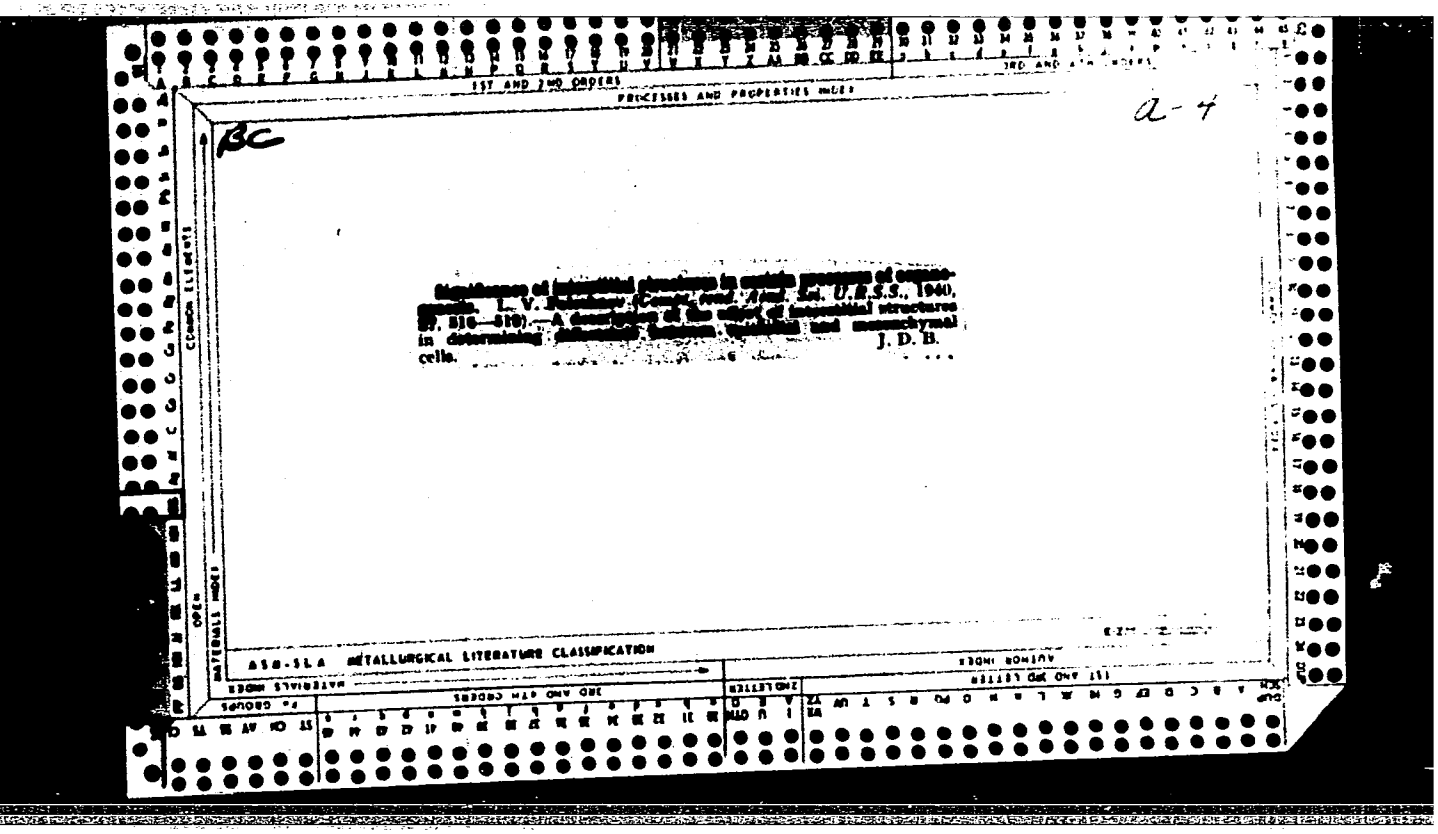

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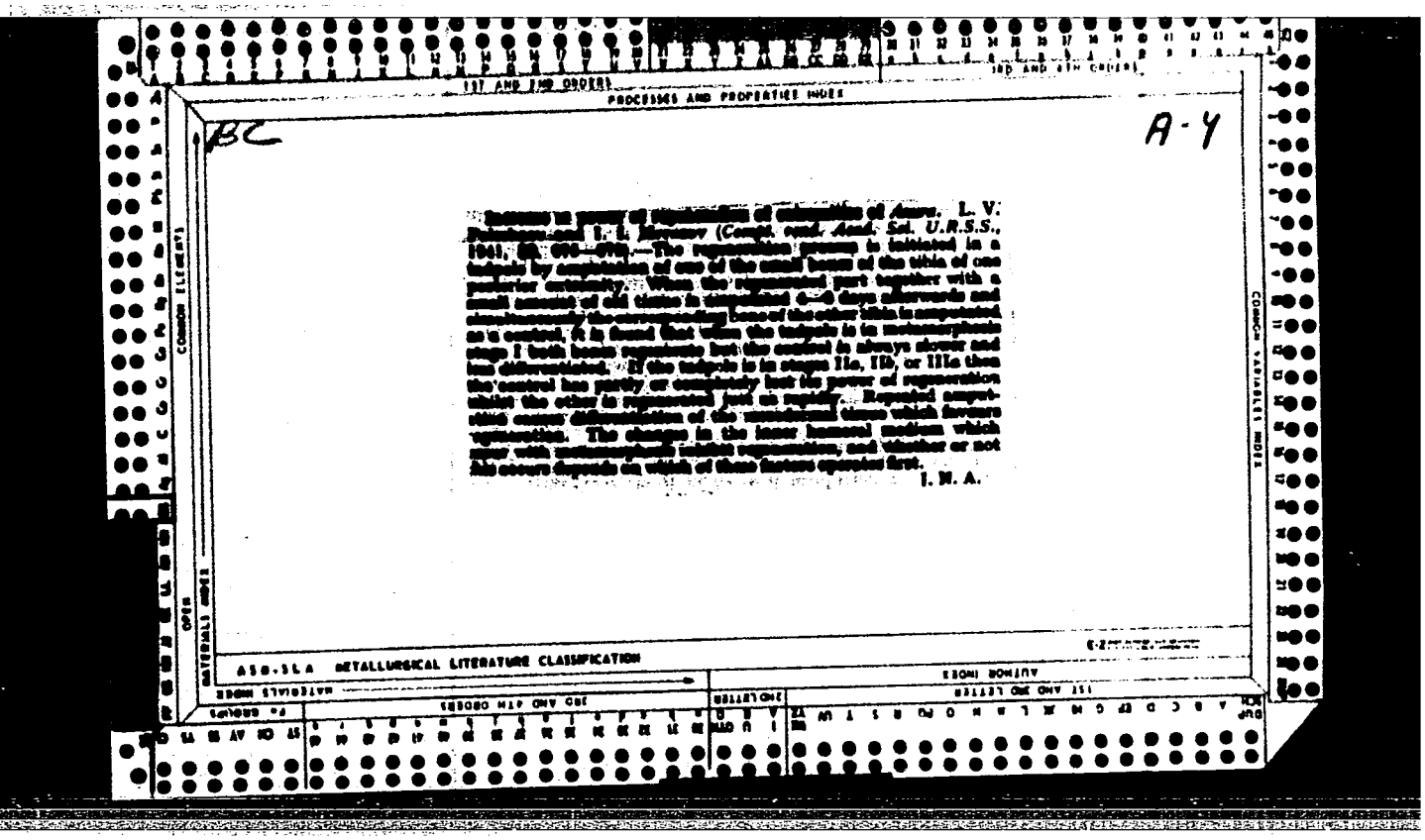

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SO: Advances in Contemporary Biology (Uspekhi Sovremennoi Biologii) Vol. 17, 1944, No. 3

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L. V. Polezhayev: "D. P. Filatov and his role in the mechanism of development." (p. 31-)

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"The Problem and the Conception of Determination in the Mechanics of Development" (page 121) by Polezhaev, L. V. (Moscow)

SO: Advances in Modern Biology, (Uspekhi Sovremennoi Biologii), Vol. 18, 1944, No. 2

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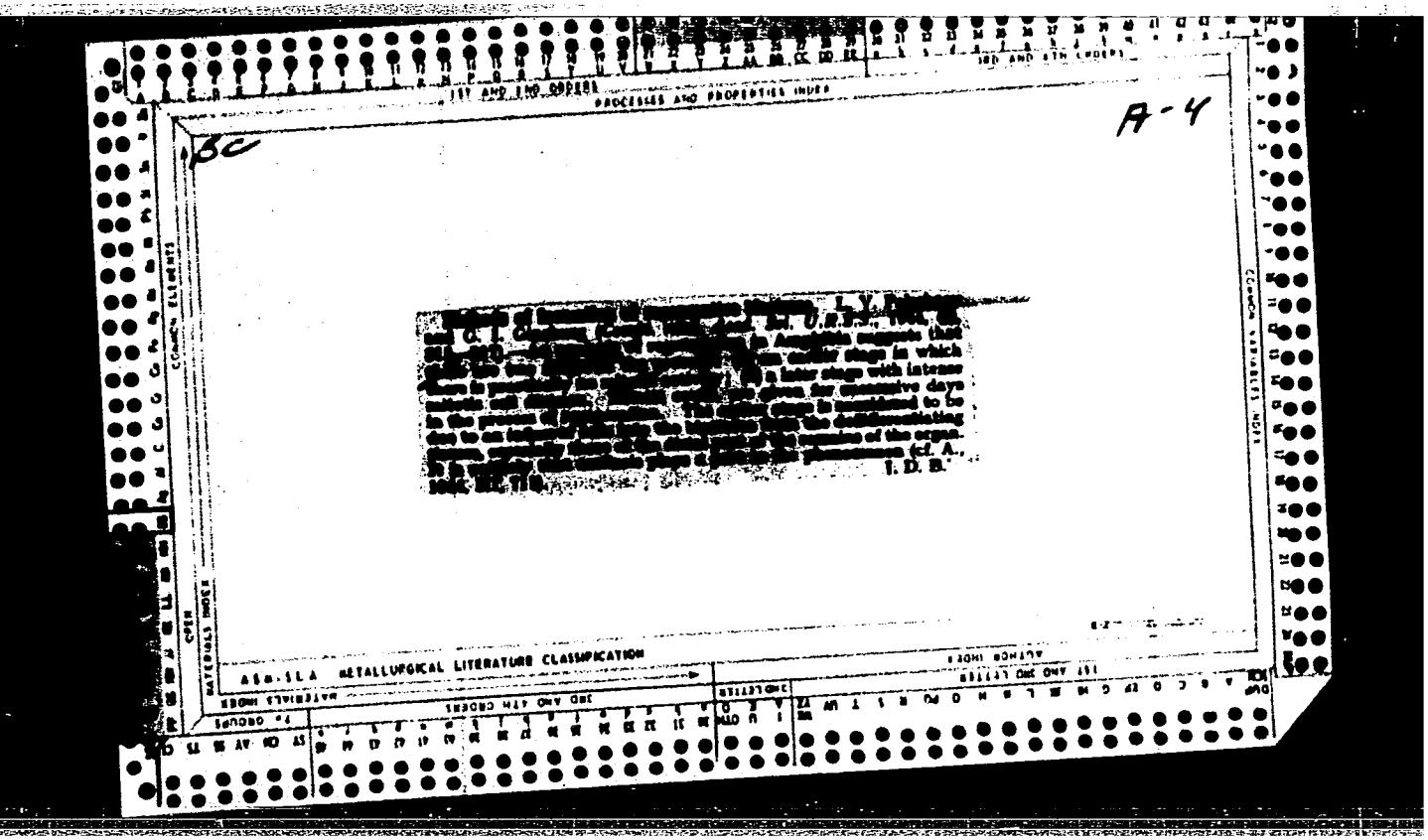

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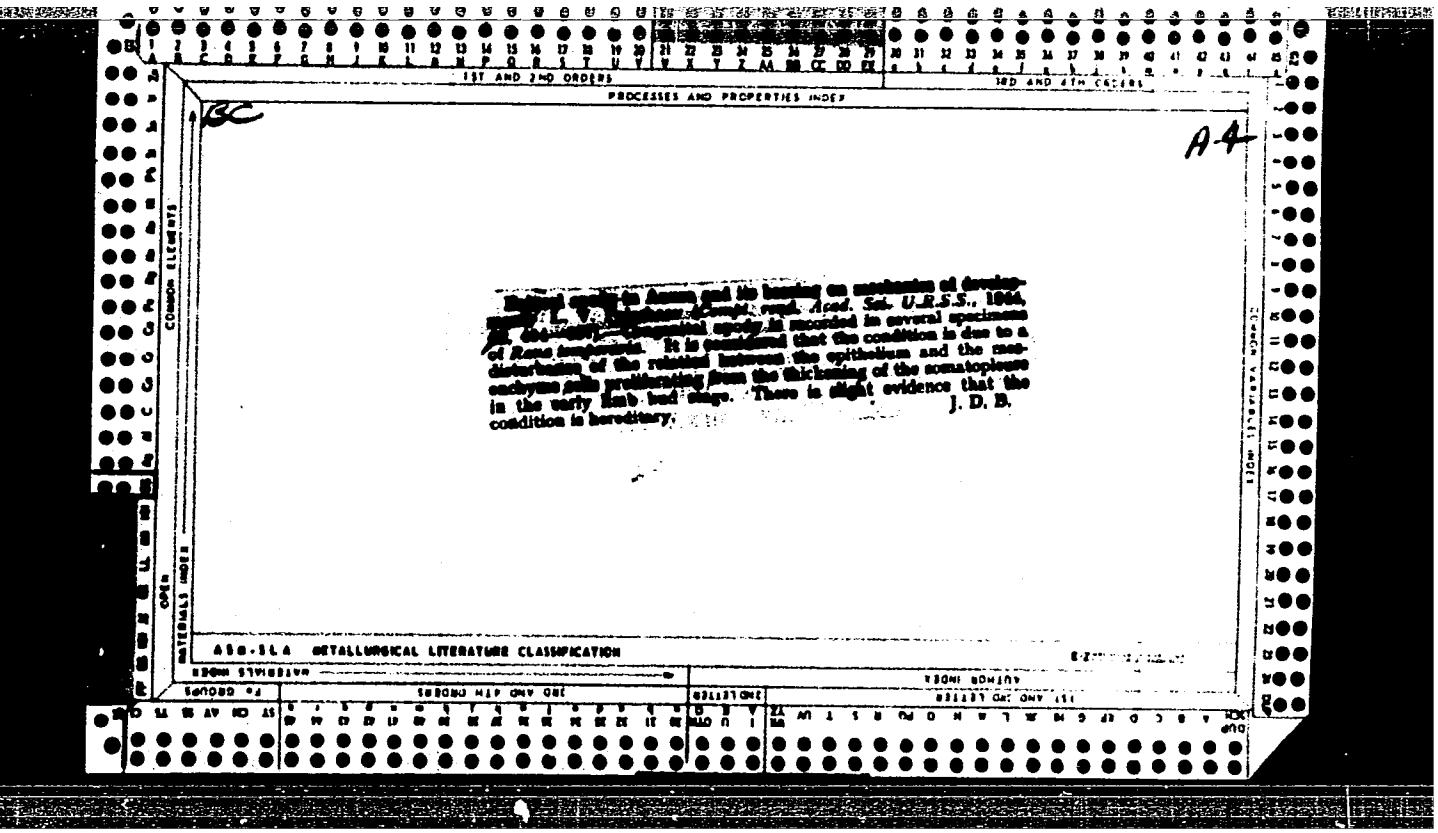

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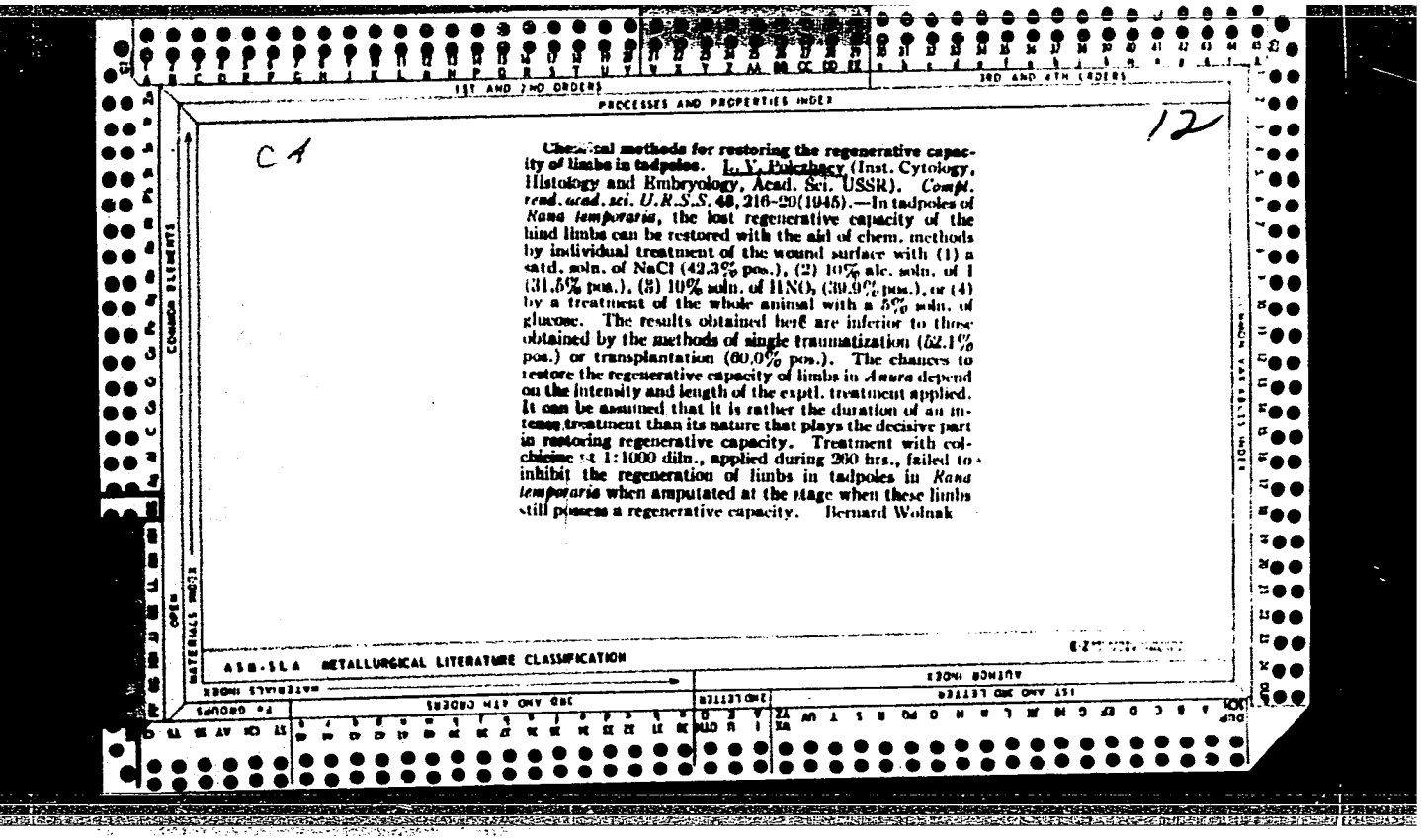

PROCESSES AND PROPERTIES INDEX

12

C 1

Chemical methods for restoring the regenerative capacity of limbs in tadpoles. L. V. Polezhaev (Inst. Cytology, Histology and Embryology, Acad. Sci. USSR). *Compt. rend. acad. sci. U.R.S.S.* 48, 216-20(1945).—In tadpoles of *Rana temporaria*, the lost regenerative capacity of the hind limbs can be restored with the aid of chem. methods by individual treatment of the wound surface with (1) a satd. soln. of NaCl (42.3% pos.), (2) 10% alc. soln. of I (31.5% pos.), (3) 10% soln. of HNO_3 (39.9% pos.), or (4) by a treatment of the whole animal with a 5% soln. of glucose. The results obtained here are inferior to those obtained by the methods of single traumatization (52.1% pos.) or transplantation (60.0% pos.). The chances to restore the regenerative capacity of limbs in *Anura* depend on the intensity and length of the exptl. treatment applied. It can be assumed that it is rather the duration of an intense treatment than its nature that plays the decisive part in restoring regenerative capacity. Treatment with colchicine in 1:1000 dilu., applied during 200 hrs., failed to inhibit the regeneration of limbs in tadpoles in *Rana temporaria* when amputated at the stage when these limbs still possess a regenerative capacity. Bernard Wolnak

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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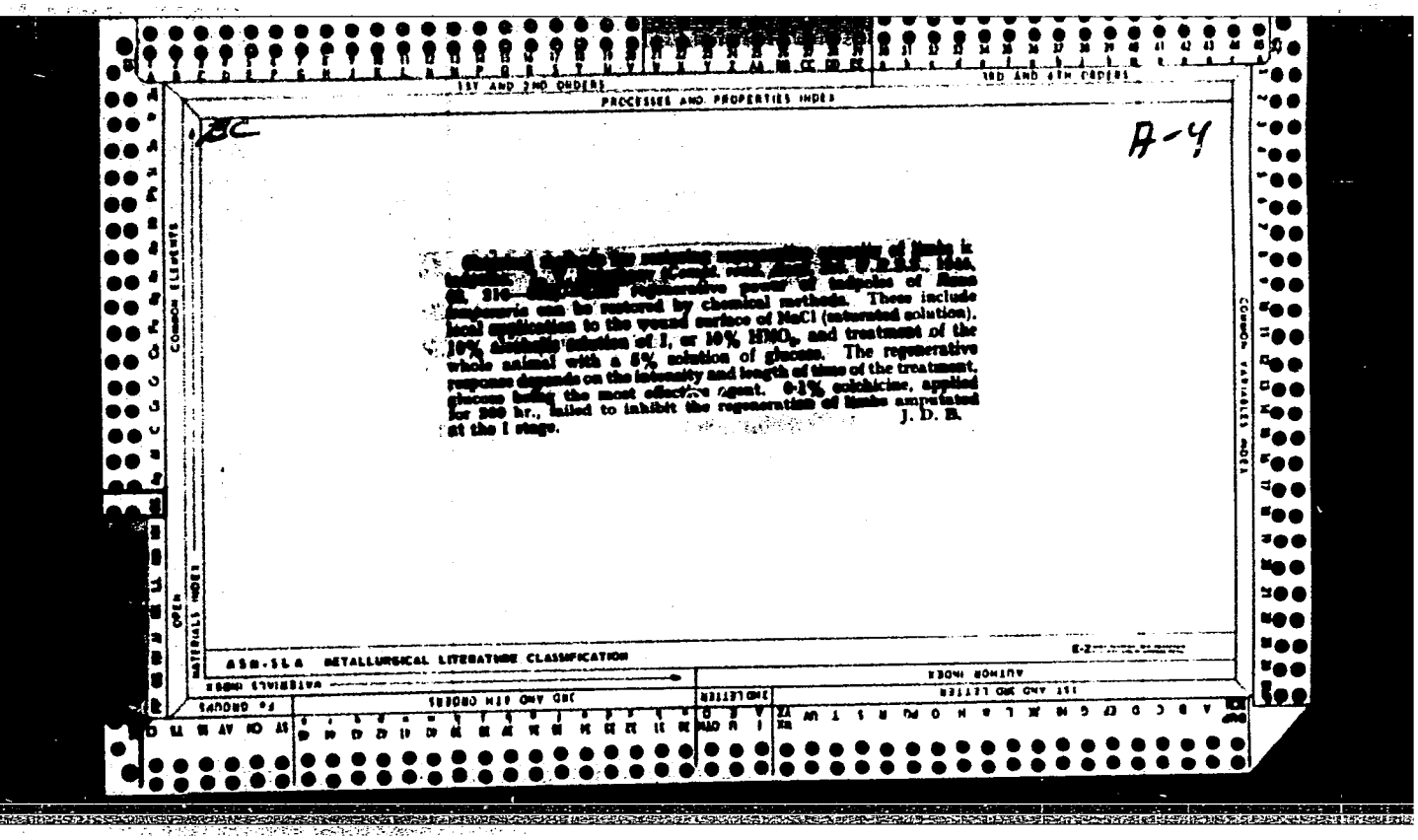

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Stimulation of myocardium regeneration in rabbits and dogs.
Dokl. AN SSSR 153 no.6:1450-1453 D '63. (MIRA 17:1)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR. Predstavleno akademikom A.N. Bakulevym.

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"L. V. Polyaev, Principles of the Mechanics of Development of Vertebrates." (p. 144) Rev. by Lazarev, N. I.

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VOVK, V.G., inzh.; POLEZHAYEV, A.A., kand.tekhn.nauk; PYLOV, B.A., kand. tekhn.nauk; TEVEROVSKIY, Yu.N., inzh.

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(Machinery--Transmission devices)

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PA 40T30

USSR/Medicine - Regeneration Sep/Oct 1947
Medicine - Extremities, Regeneration

"Notes on Thirty Years of Studies of Regeneration in the USSR," L. V. Polezhayev, Moscow, 22 pp

"Uspekhi Sovremennoy Biologii" Vol XXIV, No 2, (5)

Briefly describes development of the science to study the regrowth or replacement of a part or limb which has been lost or damaged. Discusses basic steps and history of the development of regeneration studies; regeneration in animals of various groups, i.e., invertebrates, vertebrates; determining the regenerative agent; analysis of the properties of the remnant of the organ; studies of mechanisms of the first steps in

40T30

LC

USSR/Medicine - Regeneration (Contd) Sep/Oct 1947.

process of regeneration, effect of destruction of cells during regeneration, and process of formation of regenerative growths.

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POLEZHAYEV, L. V.

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Mbr., Institute of Cytology, Histology, and Embryology, Acad. Sci.,
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POLEZHAYEV, L. V. PA 43/43T64

USSR/Medicine - Regeneration Feb 1948
Medicine - Frogs

"Analysis of Gradients of Discrimination in the Regenerative Ability of Limbs in Anurous Amphibians," L. V. Polezhayev, Inst Cytology, Histology, and Embryol, Acad Med Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 4

Describes new data on question of what factors govern gradients of discrimination in regenerative ability of limbs, and gives experimental details. Submitted by Academician I. I. Shmal'gauzen, 26 Nov 1947.

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Some principles in the theory of regeneration. L. V. [illegible]

[illegible]. *Zhur. Obshchei Biol.* (J. Gen. Biol.) 11, 251-[illegible] (1950). Among the factors of heredity (individuality of organisms) and cell growth involved in regenerating tissues, organs, or functions, metabolism is especially influential. In the first stage of regeneration glycolysis and protein degradation increase, cell respiration is low, lactic acid accumulates, and glutathione is present in its reduced form. In the second stage respiration increases, protein syuthesis is restored, oxidation-reduction processes are intensified, lactic acid content decreases, and glutathione appears in its oxidized form. 24 references. Julian F. Smith

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"The Emergence Of Cells From The Living Matter And The Role Of Living Matter In The Organism" (p.306) by L.V. Polezhaev and O.B. Lepeshinskaya

SO: Journal of General Biology (Zhurnal Obshchei Biologii) Vol. XI, 1950, No. 4

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"M. A. Vorontsova. Regeneration of the Organs of Animals." (p. 156)
by Polezhaev, L. V.

SO: Progress of Contemporary Biology, Vol. XXX, No. 1 (4), July-August, 1950.

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Problems of experimental morphology. Usp. sovrem. biol. 30:3, Nov.-Dec. 50. p. 414-37

1. Moscow.

CLML 20, 3, March 1951

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"Regeneration of Bumblbees' Extremities Caused by the Products of Hydrolysis of Cartilage", Dok.AN, 70, No. 1, 1950. Inst. of Animal Morphology im. A.N. Severtsov, Acad. Sci. c1950-.

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POLEZHAEV, L. V.

Author: Polezhaev, L.V.

Title: Replacement of bone damage in the skulls of mice.

Journal: Doklady Akademii Nauk SSSR, 1951, Vol.77, No.3, p. 525

Subject: Experimental Morphology

From: B.S.I.R. Oct 51

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BARAKINA, N.F.:GINTSBURG, G.I.:KORCHAK, L.I.:POLEZHAYEV, L.V.:ROGAL', I.G.

Repair of cranial defects. Doklady Akad. nauk SSSR 87 no. 4:673-675 1 Dec 1952. (CIML 23:5)

1. Presented by Academician A. I. Abrikosov 5 October 1952. 2. Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences USSR.

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POLEZHAYEV, L.V.; KHRUSHCHOV, G.K., professor, redaktor; GAYSINOVICH, A.Ye., redaktor; SIMKINA, Ye.N., tekhnicheskiy redaktor.

[Fundamentals of the mechanics of the development of vertebrates] Osnovy mekhaniki razvitiia pozvonochnykh. Moskva, Izd-vo Akademii nauk SSSR, 1954. 286 p. (MIRA 8:5)
(Vertebrates)

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POLEZHAYEV, L. V.

USSR/ Medicine - Experimental morphology

Card 1/1 Pub. 22 - 48/49

Authors : Polezhayev, L. V.

Title : Regeneration of extremities in tailless amphibia in relation to environment

Periodical : Dok. AN SSSR 101/3, 577-580, Mar 21, 1955

Abstract : Experiments carried out on frogs (Rana temporara) showed that the conditions of their existence (aerobic breathing, feeding, temperature and metabolism) have a great effect on the individual development of the animal and especially on the regeneration of its extremities. It is shown that a thorough knowledge of the phylo-ontogenesis of the animal is of great importance in controlling the processes of regeneration of its organs and functions. Seven USSR references (1928-1953). Table.

Institution : Acad. of Sc., USSR, The A. N. Severtsov Inst. of Animal Morphology

Presented by : Academician E. N. Pavlovskiy, February 2, 1955

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POLEZHAYEV, L.V.

USSR/General Biology - Individual Development. B-3

Abs Jour : Ref Zhur - Biologiya, No 7, 10 April 1957, 25914

Author : Polezhayev, L.V.
Inst : Academy of Sciences, USSR.
Title : Variations in Regenerative Capacity in Animals.

Orig Pub : Izv. An SSSR, ser. biol., 1956, No 1, 68-83

Abst : An analysis of data in the literature and an account of research undertaken in the author's laboratory bearing on the controlled variation of regenerative capacity. Unlike Weismann, the author conceives regeneration, on the one hand, as a basic property of living matter (one of the aspects of self-duplication) and, on the other, as an adaptation to changing environmental conditions. Regenerative capacity decreases with individual and historical development in animals, as a result of metabolic changes. Control over the regenerative process involves the reinforcement or weakening of the first phase

Card 1/2

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POLEZHAYEV, L.V.

Experimental liver infarcts in mice. Dokl.AN SSSR 107 no.3: 481-484 Mr '56. (MLRA 9:7)

1.Institut morfologii zhivotnykh imeni A.N.Severtsova Akademii nauk SSSR. Predstavleno akademikom L.A.Orbeli.
(Liver--Infarction)

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POLEZHAYEV, L.V.

Regeneration and development of cranial bones in certain mammals.
Dokl.AN SSSR 107:no.4:613-616 Ap '56. (MLRA 9:7)

1.Institut morfologii zhivotnykh imeni A.N.Severtseve Akademii nauk SSSR. Predstavlene akademikom L.A.Orbeli.
(SKULL) -

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Restoration of nonregenerating cranial bones in mammals. Izv. AN SSSR. Ser.biol. no.5:556-571 S-O '57. (MIRA 10:10)

1. Institut morfologii zhivotnykh im. A.N.Severtseva AN SSSR.
(SKULL) (REGENERATION (BIOLOGY))

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"The physiology of regeneration" by M.A.Vorontsova, L.D.Liozner. Reviewed by L.V.Polezhaev. Arkh.anat.gist. i embr. 34 no.4:124-127 Jl-Ag '57. (MIRA 10:11)
(REGENERATION (BIOLOGY))
(VORONTSOVA, M.A.) (LIOZNER, L.D.)

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POLEZHAYEV, L.V.

POLEZHAYEV, L.V.; MATVEYEVA, A.I.; ZAKHAROVA, N.A.

Regeneration of cranial bones under the effect of transplantation of ground mammalian bones [with summary in English]. Biul.eksp.biol. i med. 43 no.4:94-98 Ap '57. (MIRA 10:10)

1. Iz Instituta morfologii zhivotnykh imeni A.N.Severtsova (dir. - chlen-korrespondent AMN SSSR G.K.Khrushchev) AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR prof. O.B.Lepeshinskoy.

(GRANIUM, transpl.
exper., regeneration of cranial segment reimplanted in ground form)

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POLEZHAYEV, L.V.

AUTHOR POLEZHAYEV, L.V., MATVEYEVA, A.I., ZAKHAROVA, N.A., PA - 3380

TITLE Restoration of the Lost Parts of Cerebral Hemispheres in Mammals. (Vosstanovleniye udalennykh chastey bol'shikn polushariy golovnogo mozga u mlekopitayusnchikn - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 472-475,(U.S.S.R.)
Received 6/1957 Reveiwed 8/1957

ABSTRACT The opinion has been generally accepted that the cerebral tissue of animals and of man is unable to regenerate. The about loo year old data on such a possibility in the case of birds and monkeys were later doubted. It was said that only neuroglia can proliferate but not the nerve cells. Later results, however, gave reason for certain expectations to be kept. The authors carried out experiments on white mice and rats, furthermore on cats and dogs. By means of these experiments the conditions or the strauctural and functional regeneration of the cerebrum were to be settled. After having laid bare tne cerebrum, a rectangular piece of the large hemispheresof different depths was out out. The cleaned wound was covered with meninges and was sutured. The former action is of great importance for the success of the operation and of the experiment.The surviving animals did not show the slightest difference as compared with the nonoperated control animals. The authors convinced themselves that the cerebrum ofmamals is subordinate to the same laws of regeneration as are known for the regeneration of other animal organs. A special part is played here by the regularity of an ontogenetic modification of the regeneration faculty. As known, the lost regeneration faculty of the limbs can be mo-

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PA - 3184

AUTHOR POLEZHAYEV, L.V.,

TITLE ~~Changes Observed in~~ the Regeneration Power and Immunity of Anura in Ontogenesis.
(Izmeneniye regeneratsionnoy sposobnosti i immuniteta v ontogeneze u beskhvostykh amfibiy - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 3, pp 702-705. (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT A regularity in the relation between the regenerative power of tailless amphibiae which change in ontogeneses and the immunity against falling ill with German measles and saprolegni was discovered by extending over many years. Both mentioned disceases are widespread among amphibians and fishes. The experiments were carried out at the Kropotov Biological Station. More than 300 full-grown frogs(Rana temporaia) and 100 Bombina bombiba, arranged in series of 10 animals, as well as more than 1800 tad poles of green frogs in series of 30-50 animals were used. Spirogyra served as food. After the discribtion of the experiments the following summary is given: 1) The regenerative power and the immunity change according to certain laws and at the same itme in the ontogenesis of tailless amphibians on the occasion of metamorphosis: the capability for the regeneration of the limbs decreases, the power of resistance against German measles decreases but it increases against saprolegni. 2) The regenerative power and immunity can be changed

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28-119-5-55/59

AUTHORS: Polezhayev, L. V., Akhabadze, L. V., Zakharova, N. A., Mant'yeva, V. L.

TITLE: On the Regeneration of the Myocardium in Mammals (O regeneratsii miokarda u mlekopitayushchikh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 5, pp. 1039 - 1042 (USSR)

ABSTRACT: It is known from experiments with mammals (References 2, 16-18) and pathological-anatomical data on man (References 1,4) that the cardiac muscle does not regenerate after an injury or infarct, but that it forms a scar. Only newborn cats can regenerate myocardium (Reference 11). The authors tried to bring about the regeneration of myocardium in grown mammals. For this purpose they chose the method of the chemical organospecific traumatization. It is based on the influence exerted by own tissue proteins and their decomposition products, further of nucleoproteins upon the injured organ. Previous experiments (References 8,1o,12) yielded positive

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On the Regeneration of the Myocardium in Mammals

results. Experimental-morphological, biochemical, physiological(electrocardiography = ECG) and histological methods were employed in combination. The experiments were performed with 8o old rats. Under an urethane narcosis and artificial respiration the heart was exposed and the tissue on the front wall of the left ventricle not far from the apex of heart was bloodlessly coagulated by means of an electro-diathermic apparatus. A white infarct-like center of injury, 4-5mm in size and deep, formed. The wound of operation was then sewn up in layers. For 14-2o days the animals (except the control animals) received subcutaneous injections of biopreparations: of hydrolysates and extracts from rat hearts. The method of production of these preparations is described. The test animals were killed between the 1-st to 16o-th day after the operation, the hearts were fixed with Gelli-liquid and the paraffin sections dyed. Conclusions: 1) The described center of necrosis is resorbed in the course of time and replaced by small centers of non-differentiated muscles which later decompose and dis-

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appear. The muscles of the marginal zone are neither destroyed nor dedifferentiated nor regenerated. No microcells are formed. 2) When the hydrolysate is given the necrotic center is resorbed 2 1/2 times faster. In its place muscles are newly formed which have no connection with the old muscles of the marginal zone. Microcells are formed in a large amount. The extract stimulates the regeneration less than the hydrolysate. 3) After the injury of the heart the ECG passes an acute, a subacute and a scar stage. The hydrolysate shortens the acute stage and brings about an earlier beginning of the scar stage. In 50% of cases the ECG returns to the norm on the 11-th day after the operation which morphologically corresponds to the restoration of the myocardium. There are 3 figures and 19 references, 12 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute for Animal Morphology imeni A. N. Severtsov, AS USSR)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341720017-5

AUTHORS: Polezhayev, L. V., Matveyeva, A. I., SOV/20-120-1-59/63
Vorob'yeva, V. I.

TITLE: On the Regeneration of Dental Tissue in Dogs
(O regeneratsii tkani zuba u sobak)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 120, Nr 1,
pp. 212-215 (USSR)

ABSTRACT: In previous publications the authors proved that in higher animals too, by operations a perfect regeneration of a destroyed tissue (vault-bones of the cranium), which usually does not regenerate, can be caused (references 4 - 9). The question arose whether such a regeneration is also possible in the firmest and hardest organs of mammals which never regenerate. This refers to the teeth. With that two factors should be excluded which may cause the lacking regeneration in men and animals: a) The employ of drugs, and b) Lacking biological conditions in the operation which might favor the regeneration. Essentially it could be hoped that the regeneration of dental tissue could be caused, as dentine and cement are very similar

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On the Regeneration of Dental Tissue in Dogs SOV/20-120-1-59/63

to bone tissue according to their structure. Thus the authors decided to stimulate dental tissue to regenerate by means of the destructive method. As test animals eight adult dogs, 2 - 5 years old, were used. Under morphine--ether narcosis 5 - 8 millimeter deep holes were drilled in in the crowns of their teeth to the pulp. The first portions of enamel bore meal were removed, the rest was kept sterile. For that purpose the finger tip of a rubber glove was used which was put round the base of the tooth so that the bore meal fell into it. Moreover this dust was a little moistened by a penicillin solution, and the cavity drilled out in the tooth was filled with this paste. The top part was filled with phosphate cement. After the operation the animals showed no discomfort, especially no symptoms of tooth ache. They were killed 45, 60, 100, 370, and 436 days after the operation (one animal got pulpitis and was killed after 7 days). The phosphate cement filling was preserved for 2 months up to 1 year. After its removal a solid tissue arosen from the graft could be felt with forceps in the tooth cavity. No dog the filling of which had fallen out felt tooth ache. Thus the pulp was reliably

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On the Regeneration of Dental Tissue in Dogs SOV/20-120-1-59/63

protected by the biological implant. The histological investigation showed a clear result in all cases: the biological implant is changed into a bonelike tissue which perfectly fills out the tooth cavity (figure 1). The dental tissue which is regarded as incapable of regeneration by many physicians proved under given conditions as capable of regeneration and of metaplasia (figure 2). Finally a survey of similar tests is given from publications (reference 10). Thus the lacking regeneration of dental tissue is not caused by the incapacity of the dental tissue of regenerating but by drugs and by deficient biological conditions. There are 3 figures and 10 references, 9 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov, AS USSR)

PRESENTED: January 14, 1958, by K. I. Skryabin, Member, Academy of Sciences, USSR

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On the Regeneration of Dental Tissue in Dogs SOV/20-120-1-59/63

SUBMITTED: January 14, 1958

1. Teeth--Regeneration 2. Dogs--Physiology

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POLEZHAEV, L.V.

POLEZHAEV, L.V.

Some new approaches to the regeneration problem. Folia biol 7 no.3: 215-237 '59. (EEAI 9:11)

1. Institut Morfologii Zhivotnykh im. A.N.Severtsova AN SSSR, Moskva.
(REGENERATION (BIOLOGY))

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POLEZHAYEV, L.V.

Heterochronism of regeneration phenomena. Zhur.ob.biol. 20 no.4:285-288 Jl-Ag '59. (MIRA 12:11)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.
(REGENERATION (BIOLOGY))

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POLEZHAYEV, L.V.; AKHABADZE, L.V.; ZAKHAROVA, N.A.; MANT'YEVA, V.L.

Stimulating the regeneration of the mammalian cardiac muscle [with summary in English]. Izv. AN SSSR Ser.biol. 24 no.1:16-33 Ja-F '59. (MIRA 12:2)

1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R., Moscow.
(HEART--MUSCLE) (REGENERATION (BIOLOGY))

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SOV/20-126-1-61/62

17(1)
AUTHOR: Polezhayev, L. V.

TITLE: The Importance of the Nature of the Injury for the Healing of the Myocardium in Mammals (Znacheniye kharaktera povrezhdeniya dlya zazhivleniya miokarda u mlekopitayushchikh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 221-224 (USSR)

ABSTRACT: Myocardium does not regenerate. Injuries caused by burning, stab wounds, incised wounds, the insertion of foreign bodies, experimental and spontaneous infarcts usually cicatrize in grown up animals and in man (Refs 1,3,8-11). With the electro-diathermo-coagulation in the hearth of injury of the myocardium in rats it may occur that parts of the muscles regenerate. During the treatment of the animals with hydrolysates and extracts from the hearts of rats, the whole focus of lesion is filled with newly developed muscles. During this process a normalization of the E.K.D. (Refs 2,4) takes place. In the present paper, the author describes the result of his experiments which he made to explain the problem given in the title. 93 animals were operated (N. A. Zakharova and L. V. Akhabadze

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The Importance of the Nature of the Injury for the Healing of the Myocardium in Mammals

took part in the experimental part, and V. L. Mant'yeva made the biopreparations). Experiments with burnings (Fig 1), with ligatures (Fig 2) and with suction were made. It was found that in the healing processes after all three kinds of injuries, some common features can be observed: edema, infiltration of erythocytes and leucocytes into the tissues, cell proliferations of the connective tissue in an amitotic way, decomposition of the polynuclears, and transformation of the fragments of their nuclei into lymphocytes and polyblasts, decay, degeneration, and atrophy of damaged muscular fibres, transformation of muscular fibres during the phase of atrophy into cells which take part in the processes of granulation and cicatrization. A quick healing of the damaged myocardium is guaranteed by the fact that the following cells take part in the processes of granulation and cicatrization: 1) cells of hematogenic origin (polynuclears, lymphocytes, polyblasts), 2) surviving cells of the local connective tissue, and 3) surviving myogenic cells. Every damage however, also causes

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The Importance of the Nature of the Injury for the Healing of the Myocardium in Mammals

changes of its own in the myocardium. All three kinds of lesions as well as stab wounds and incised wounds lead to cicatrization and no regeneration of muscle fibres takes place. On the other hand the electro-diathermo-coagulation creates conditions for the regeneration of muscles in the focus of the damage in the myocardium. There are 3 figures and 12 references, 6 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences, USSR)

PRESENTED: January 21, 1959, by K. I. Skryabin, Academician

SUBMITTED: December 25, 1958

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